Box and Whisker Diagrams Date: _____

The following scores were obtained on a recent math quiz:

68	92	85	87	94	72
96	83	65	78	88	

1) Arrange these numbers in ascending order:

2) Find the least value and the greatest value.

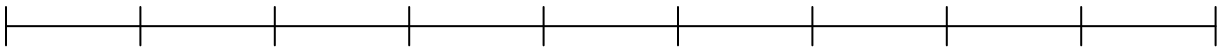
The lowest test score is _____. The highest test score is _____.

3) Find the median of the data. The median is _____.

4) Find the median of the lower half of the data. The median for the lower half of the test scores is _____.

5) Find the median of the upper half of the data. The median for the upper half of the test scores is _____.

6) Using the number line below, mark the points for the values you found in steps 2) to 5). Draw a box from the point found in step 4) to the point found in step 5). The length of the box is important, but the height (thickness) can be any convenient size. Draw a whisker from the point found in step 5) to the maximum value. Then draw a whisker from the point found in step 4) to the lowest test score. At the median of the data set, draw a vertical line within the box from its bottom to its top.



7) The TI – 84 will perform many of the calculations that we have been doing in class. (In fact, more!) Enter the data in list one (L1). Press STAT. Move the cursor to the word CALC. Press ENTER twice.

8) According to the screen display, what is the mean of the data? _____ Verify this result.

9) Press the blue down arrow key until no new data appears.

10) In the sequence listed in (1) underline the numbers represented by minX and maxX. Circle the number represented by Med and double underline the numbers represented by Q_1 and Q_3.

11) What do you think these numbers represent? What could the Q stand for?

12a) Q1 (also written as Q_L) represents the _____ _____

It is called the _____.

b) Q3 (also written as Q_U) represents the
_____

It is called the _____.

c) The difference between these two values ($Q_U - Q_L$) is called the _____

_____.